



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of:)
Yen-Lin Chen et al.)
(Food Industry Research and)
Development Institute)
Serial No.: 10/629,198)
Filed: July 29, 2003)
For: MONASCUS PURPUREUS)
MUTANTS AND THEIR USE IN)
PREPARING FERMENTATION)
PRODUCTS HAVING BLOOD)
PRESSURE LOWERING)
ACTIVITY)

Examiner: Vera Afremova

Art Unit: 1651

Honorable Commissioner for
Patents and Trademarks
P.O. Box 1459
Alexandria, Virginia 22313-1450

DECLARATION

Sirs:

I, Yen-Lin Chen, declare as follows:

THAT, I am a co-inventor of the above-identified patent application;

THAT, I received an M.S. degree in Biology from National Taiwan University;

THAT, I join the Food Industry Research and Development Institute since 1997 as an associate scientist;

THAT, I have been conducting researches in the mutation of microorganisms for numerous years and presented at least four papers and abstracts concerning these researches. I am fully trained in and familiar with the technical contents of the invention disclosed and claimed in the above referenced application;

THAT, I, based on the same media (b and c) and conditions for obtaining the data shown in Table 1 as described in the specification of the above-identified patent application, have conducted a test to determine the amounts of GABA and citrinin produced by *Monascus purpureus* strains CCRC 31499, M011, M022, and M1033. The following table shows the results of the test and the differences between these strains.

	CCRC 31499	M011	M022	M1033
Color	-	yellowish orange	pink	pink
GABA (mg/ml)	0.031 ^b 0.134 ^c	ND* 0.255 ^c	0.039 ^b 0.834 ^c	0.429 ^b 2.07 ^c
Citrinin (ppm)	2.1 ^b 4.418 ^c	ND* 0.149 ^c	<0.15 ^b <0.15 ^c	<0.15 ^b <0.15 ^c
Function	for the production of GABA	for the production of yellow pigment	for the production of GABA	for the production of GABA

^b cultivated in the culture medium containing rice powder 60 g/l, soybean powder 30 g/l and MgSO₄ · 7H₂O 5 g/l.

^c cultivated in the culture medium containing flour 80 g/l, yeast extract 10 g/l and glutamic acid 10 g/l.

* None detected.

It should be noted that the color and function of *Monascus purpureus* strain M011 are different from those of *Monascus purpureus* strains M022 and M1033. In addition, the amounts of GABA produced by *Monascus purpureus* strains CCRC 31499 and M011 in medium c (0.134 mg/ml and 0.255 mg/ml, respectively) are much lower than those produced by *Monascus purpureus* strains M022 and M1033 in the same medium (0.834 mg/ml and 2.07 mg/ml, respectively); and the amounts of citrinin produced by *Monascus purpureus* strains CCRC 31499 and M011 in medium c (4.418 ppm and 0.149 ppm, respectively) are much higher than those produced by *Monascus purpureus* strains M022 and M1033 in the same medium (<0.15 ppm). This suggests that *Monascus purpureus* M011, M022 and M1033 are different strains of microorganism and *Monascus purpureus* M022 and M1033 indeed present improvements in increasing the production of GABA and reducing the production of citrinin over *Monascus purpureus* CCRC 31499 and M011.

I further declare that all statements made herein from my own knowledge are true, and that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

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By Yen-Lin Chen
Yen-Lin Chen

Date: 94 9 30